

Name _____ Date _____

Supplemental Math Instruction – Mrs. Britton and Miss Sciandra
Evaluating Expressions (A1.1.1.3)

1. Evaluate the following expression when $n = 7$.

$$|n - 6| - |5 - n|$$

- ☐ A. 3
- ☐ B. -6
- ☐ C. -3
- ☐ D. -1

2. Simplify the following expression.

$$(3^3)^4$$

- ☐ A. 3^{12}
- ☐ B. 3^7
- ☐ C. 3^{-1}
- ☐ D. 8^7

3. Simplify the following.

$$48 \div \sqrt{16} - 6(2 + 8)$$

- ☐ A. -48
- ☐ B. 2
- ☐ C. -8
- ☐ D. -12

Evaluate the following expression for $m = 36$.

4. $\sqrt{4m} - 3$

- ☐ A. 15
- ☐ B. 21
- ☐ C. 9
- ☐ D. 27

5. Simplify the following expression.

$$4^0$$

- ☐ A. 4
- ☐ B. 0
- ☐ C. 1
- ☐ D. $\frac{1}{4}$

6. Simplify:

$$(5\sqrt{6} + 5\sqrt{3})(5\sqrt{6} - 5\sqrt{3})$$

- ☐ A. 225
- ☐ B. $75 - 75\sqrt{2}$
- ☐ C. 75
- ☐ D. $75 + 75\sqrt{2}$

7. Simplify:

$$\frac{\sqrt{250} - \sqrt{40}}{\sqrt{2}}$$

- ☐ A. $3\sqrt{10}$
- ☐ B. $3\sqrt{5}$
- ☐ C. $3\sqrt{2}$
- ☐ D. 15

8. Simplify the following expression.

$$7^{-2}$$

- ☐ A. $-\frac{1}{7^2}$
- ☐ B. $7(-2)$
- ☐ C. -7^2
- ☐ D. $\frac{1}{7^2}$

9. Evaluate the following expression when $r = 3$ and $t = 2$.

$$6r^t + 47$$

- ☐ A. 71
- ☐ B. 101
- ☐ C. 119
- ☐ D. 65

10. Evaluate the following expression when $r = 4$ and $t = -2$.

$$64r^t$$

- ☐ A. 4
- ☐ B. $\frac{1}{16}$
- ☐ C. -1024
- ☐ D. $\frac{1}{1024}$

11. Evaluate the following expression when $n = -6$.

$$6|n + 5|$$

- ☐ A. 7
- ☐ B. 6
- ☐ C. -6
- ☐ D. 66

12. Simplify the following expression.

$$9^4 \cdot 9^5$$

- ☐ A. 9^9
- ☐ B. $9(20)$
- ☐ C. $9(9)$
- ☐ D. 9^{20}

Evaluate the following expression for $x = 10$.

13. $4\sqrt{x - 1} + 7$

- ☐ A. 15
- ☐ B. 19
- ☐ C. 5
- ☐ D. 23

14. Simplify: $8(|-12 + 30| + 12) - 30$

- ☐ A. 108
- ☐ B. 210
- ☐ C. 192
- ☐ D. 270

15. Simplify the following expression.

$$\frac{2^4}{3^4}$$

- ☐ A. $(2 - 3)^4$
- ☐ B. $\frac{2}{3}$
- ☐ C. $2^4 - 3^{-4}$
- ☐ D. $\left(\frac{2}{3}\right)^4$

16. Evaluate the following expression when $n = 3$.

$$2|4 - 5n| + |2|$$

- ☐ A. 24
- ☐ B. 20
- ☐ C. -20
- ☐ D. -24

Evaluate the following expression for $z = 226$.

17.
$$3 + 8\sqrt{z - 1}$$

- ☐ A. 123
- ☐ B. 115
- ☐ C. 165
- ☐ D. 131

18. Simplify: $|60 - 3 \cdot 19| - 10|2 - 4|$

- ☐ A. -17
- ☐ B. 21
- ☐ C. 17
- ☐ D. -21